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10/798,206

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Jeremy Mercer

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EXAMINER

XU, KEVIN K

ART UNIT

PAPER NUMBER

2628

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DELIVERY MODE

08/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/798,206

Applicant(s)

MERCER, JEREMY

Examiner

Kevin K. Xu

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 6/4/07 have been fully considered but they are not persuasive. Firstly, applicant has argued that Luo in view of Bates is neither related to "visual design surfaces" nor concerned with displaying shapes on a visual design surface and thus, Luo is not analogous art. Examiner respectfully disagrees. It should be noted that the term "visual design surface" is not explicitly defined in applicant's disclosure. (specification p. 1-2) While applicant notes Microsoft visual studio as an example of an application that includes a visual design surface, with the utility of said design surface to model business processes and further notes visual design surfaces which may be *commonly used* to illustrate and design systems using graphical notations, applicant nonetheless does not limit the term "visual design surface" to only these interpretations. Furthermore claims 1, 12, and 19 recite representing an "element with a shape on a visual design surface." This is what Luo teaches. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that the element with a shape as taught by Luo is simply a character and furthermore a design surface as taught by Luo (to be visualized/displayed with an aura as the Bates reference teaches) is simply the background image portion of the character string that is extracted.

Secondly applicant has argued that the Bates reference is only concerned with displaying and editing text, rather than displaying shapes on a visual design surface. Again the visual design surface as taught by Luo (as stated above) is simply the

background image portion of the character string that is extracted (each character represents an element with a shape). The Bates reference is simply utilized to show that it would be beneficial to visualize/display the extracted data of Luo to a user via bolding/highlighting the data of interest.

Furthermore applicant has argued that since Luo is classified in class 382 (image analysis) and Bates is classified in class 715 (data processing) Luo and Bates are non-analogous art. Examiner respectfully disagrees. It should be noted that Luo teaches a method and system for detecting and extracting character data (via edge detection) and Bates teaches a method and system for detecting and subsequently displaying character data and therefore both references must be concerned with character data and both references require detecting of character data thus, may be constituted as analogous art. Again it should be noted that while Luo is concerned with image processing applications while Bates is concerned with text editing applications, Luo never necessitates nor implies that it is impossible to display the extracted data nor does Luo explicitly exclude the possibility of doing so in his reference.

Lastly applicant has amended claims 1 and 12 specifying "associating the characteristic with an aura indicative of the determined value" and has argued that Luo and Bates fail to teach or suggest these features. Examiner respectfully disagrees. It should be noted that two understandings of an aura "indicative of a determined value" can be interpreted. Firstly, an aura as taught by Luo is simply a bounding box bounding the area of the character and wherein each bounding box is associated with edge detection values as well as foreground/background contrast values. Therefore the aura

(bounding area) that is formed is indicative of the determined value (edge detection direction) of each candidate box (each character extracted) being a positive candidate (image data corresponding to character strings). (See p. 4 paragraphs 37-43).

Therefore Luo teaches the aura of interest is indicative that the character string extracted is actually character data. Another interpretation of the said limitation is that Bates teaches displaying whether or not a particular word is repeated by detecting and subsequently highlighting/bolding such a word. Thus, the determined value as taught by Bates is whether or not the particular word is repeated or not and the aura indicates said value by displaying whether or not the word is highlighted or not. The amendment of claim 19 is similar in scope to claims 1 and 12 and thus the same rationale as noted above will be used in subsequent rejection. For rationale of rejection of new claim 21 as well as providing a reference with respect to applicant's challenge of official notice of claim 7, see below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8-13, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (20030198386) in view of Bates (6976214)

Regarding claim 1, Luo teaches representing an element with a shape on a visual design surface. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4

Art Unit: 2628

paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that the Luo teaches a character, which represents an element with a shape. (See. Fig. 5, Fig. 8B for example) Furthermore Luo teaches determining a value of a characteristic of the element. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that Luo teaches for each character in the character string extracted, edge detection is utilized to determine whether a candidate box corresponds to a positive candidate (correspond to text regions) where edges are detected. Furthermore Luo teaches associating the characteristic with an aura indicative of the determined value. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that the aura as taught by the Luo is bounding box bounding the area of the character and wherein each bounding box is associated with edge detection values as well as foreground/background contrast values. (p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) Nonetheless, Luo does not explicitly teach displaying the aura in association with the shape on the design surface. This is what Bates teaches. (Figs. 4-6, Col 4 line 4-Col 5 line 56) It should be noted that Bates teaches displaying text box in bold and highlighting the term in the text box. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of displaying a term (word) inside a text box in bold and/or highlighting the term in the text box because

the user is provided with the additional functionality editing text and thus, improving composition and form of text.

Regarding claim 19, Luo teaches a multiple design element shapes (character data with different shapes) and an aura in proximity to the design element shape to represent a value of a characteristic. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that the aura as taught by the Luo is bounding box bounding the area of the character and wherein each bounding box is associated with edge detection values as well as foreground, background contrast values. (p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) Nonetheless, Luo does not explicitly teach displaying the design shape element (character) and displaying the aura, the auras being displayed with different visual characteristics in order to indicate that the design element shapes have different values corresponding to particular characteristic. This is what Bates teaches. (Figs. 4-6, Col 4 line 4-Col 5 line 56) It should be noted that Bates teaches displaying text box in bold and highlighting the term in the text box. It should be noted that Bates teaches different visual characteristics (indicating a particular word is highlighted or not) in order to indicate that the design element shapes (characters) have different values (repeated/non-repeated) corresponding to that characteristic (highlighted/non-highlighted). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of displaying a term (word) inside a text box in bold and/or highlighting the term in the text box because the user is provided with

the additional functionality editing text (such as that extracted in Luo) and thus, improving composition and form of text.

Regarding claim 20, Luo teaches the aura is around the design element shape. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that the aura as taught by the Luo is bounding box bounding the area of the character and wherein each bounding box is associated with edge detection values as well as foreground, background contrast values. (p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) Nonetheless, Luo does not explicitly teach displaying the aura. This is what Bates teaches. (Figs. 4-6, Col 4 line 4-Col 5 line 56) It should be noted that Bates teaches displaying text box in bold and highlighting the term in the text box. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of displaying a term (word) inside a text box in bold and/or highlighting the term in the text box because the user is provided with the additional functionality editing text and thus, improving composition and form of text.

Regarding claim 21 Bates teaches different visual characteristic associated with different potential values of the characteristic and displays the aura with visual characteristic associated with determined value of the characteristic. (Figs. 4-6, Col 4 line 4-Col 5 line 56) The different visual characteristic (highlighted/non-highlighted) is associated with a different potential value (word being repeated or not, word needed to be replaced or not) as taught by Bates. It would have been obvious to one of ordinary

skill in the art at the time the invention was made to combine the teachings of displaying a term (word) inside a text box in bold and/or highlighting the term in the text box because the user is provided with the additional functionality editing text and thus, improving composition and form of text.

Regarding claim 2, Luo teaches the aura comprises a color coded area surrounding the shape. It should be noted that the image extracted is a gray scale image and the grayscale image is used to obtain edge representation of the image. (p. 2 paragraph 27, p. 4 paragraph 36)

Regarding claim 3, Luo teaches the aura comprises a color-coded area adjacent to at least a portion of the shape. (p. 2 paragraph 27, p. 4 paragraph 36, Fig. 2, Figs. 8A-8B)

Consider claim 4, Luo teaches repeating steps in claim 1 for a plurality of elements (i.e. additional characters of the extracted word, each character contained in a bounding box) (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) Furthermore, Luo teaches merging aura associated with at least some elements in close proximity and having the same value characteristic. (Figs. 8A-8B, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that the common value characteristic as taught by Luo for each element (character) is acceptable value of contrast between foreground and background. (p. 5 paragraph 46) Nonetheless, Luo does not explicitly teach displaying the aura in association with the shape on the design surface. This is what Bates teaches. (Figs. 4-6, Col 4 line 4-Col 5 line 56) It should be noted that Bates

Art Unit: 2628

teaches displaying text box in bold and highlighting the term in the text box. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of displaying a term (word) inside a text box in bold and/or highlighting the term in the text box because the user is provided with the additional functionality editing text and thus, improving composition and form of text.

Regarding claim 8, Luo teaches the at least one characteristic comprises a use for the element. (p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that the edge (characteristic) allows the character to be used (detected) within a word.

Regarding claim 11, Luo teaches wherein at least one characteristic comprises an identification of an importance level. (p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that text may be recognized as of higher importance level than non-text.

Consider claim 12, Luo teaches determination a value of at least as a second characteristic of the element. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that a second characteristic as taught by Luo may be contrast between foreground and background. (p.5 paragraphs 45-46) Associating the second characteristic with a second aura indicative of the value of the second characteristic is taught in Fig. 8B (Merging auras to create a word). Nonetheless, Luo does not explicitly teach displaying the second aura in association with the shape on the design surface. This is what Bates teaches. (Figs. 4-6, Col 4 line 4-Col 5 line 56) It should be noted that

Bates teaches displaying text box in bold and highlighting the term in the text box. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of displaying a term (word) inside a text box in bold and/or highlighting the term in the text box because the user is provided with the additional functionality editing text and thus, improving composition and form of text.

Claim 13 is similar in scope to claim 12 except for the recitation of determining a value of at least a third characteristic of the element. This is taught by Luo. (p.4 paragraphs 39-42) It should be noted that the third characteristic as taught by Luo is direction information. Thus, claim 13 is rejected under similar rationale as claim 12.

Regarding claim 9, Luo does not explicitly teach one characteristic comprises identification of namespace. Examiner takes official notice that extracted words may be names. It would have been obvious to one of ordinary skill in the art at the time the invention was made to extract names into the combination of Luo and Bates because the user is provided with the additional functionality of editing names.

Regarding claim 10, Luo does not explicitly teach one characteristic comprises identification of an application layer. Examiner takes official notice that images with some text may identify an application layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide highlights to those type of images to better visually identify and label said images.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (20030198386) in view of Bates (6976214) in further view of Tappert. (4731857)

Regarding claim 5, Luo teaches repeating steps in claim 1 for a plurality of elements (i.e. additional characters of the extracted word, each character contained in a bounding box) (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) For motivation of displaying the aura in association with shape, see claim 1. Nonetheless neither Luo nor Bates explicitly teaches sorting the elements (characters) so that elements having the same characteristics are generally in the same location. However, it should be noted that Luo does teach elements having the same characteristic (positive candidate bounding boxes) are generally located in the same region (see Fig. 8B, merging of bounding boxes [auras]). However Luo fails to teach sorting of characters. This is what Bates teaches. (Col 3 lines 7-19, Col 3 lines 48-68, Col 5 lines 1-18, Col 6line 51-Col 8 line 29) It would have been obvious to one of ordinary skill in the art at the time the invention was made to sort characters for word recognition purposes into the system of Luo because initial character segmentation is not final and need not be highly accurate but is subject to lesser constraint of containing all the true segmentation points (Col 3 lines 64-68) and thus, a more efficient word recognition system can be achieved.

Regarding claim 6, Luo teaches grouping elements in affinity regions, wherein each affinity region represents elements having the same value of the characteristic. (Fig. 2, Figs. 8A-8B, p. 3 paragraph 35, p.4 paragraph 37, p. 4 paragraphs 37-38, paragraph 43, p.5 paragraphs 45-48, p. 6 paragraphs 49-50) It should be noted that Luo teaches merging two auras both having positive candidates (edge detected

and/or proper allowed constrast levels). For motivation of displaying elements in merged auras (affinity regions), see claim 1.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (20030198386) in view of Bates (6976214) in further view of Tappert. (4731857) and Shostak (5893125)

Regarding claim 7, it should noted that Examiner is providing Shostak as a reference due to applicant's challenge of examiner's official notice in the previous action. Shostak teaches utilizing labels such an image icon to indicate the status of an object or its contents. (Col 8 lines 2-33, Fig 3, Col 15 lines 6-19, Fig. 11B) It should be noted that Shostak teaches that when the toolbar (label/icon) corresponding to selected text object is invoked (changes in status), having for changing the font of the selected text may be invoked as well. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a label to allow user to identify and change the status of a highlighted text box as taught by Shostak into the system of Luo because labels provide the functionality of giving users a convenient way of identification as well as describe characteristics of the object that would not be obvious from simple examination.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin K. Xu whose telephone number is 571-272-7747. The examiner can normally be reached on 8:30AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman can be reached on 571-272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KX

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7/31/07



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